MYRMECIA

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NOTICE

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EDITORIAL

Delving into the depths of this issue of Myrmecia will have you on the edge of your seat with a gripping tale of tsunami-based death and destruction (see Far North Queensland news). It will also have you reclining and dreaming of (depending no where you live) conferences in lands far, far away and for those of you who have just finished your Masters or PhD and enjoy humidity and heat, a glimmer of hope in the world of employment. Negotiations with Blackwell's by the executive has led to some great outcomes for members who subscribe to the hardcopy AJE. These members also have access to the e-version of the AJE! Other subscribing members are not left out however as access to past volumes of Blackwell's published AJE is now available to anyone who subscribes to the journal. More about these events can be found inside.

PRESIDENT'S MESSSAGE

There is an increasing appreciation amongst government, industry, decision-makers and the general public that invertebrates comprise an important and legitimate part of our biodiversity. We aren't there yet, as I am sure you are all aware. Who doesn't hear sarcastic quips from members of the public when you mention that you are working on insects? A couple of us have recently been interviewed on ABC radio on the topic of ants and, on both occasions, the interviewer seemed more interested in "getting rid" of them that hearing about the fascinating role that they play in the environment.

But back to my point, there is unquestionably a change for the better, with terrestrial invertebrates being included in environmental surveys, environmental impact assessments and in reviews of the state of the environment. A prominent activity has been that of the mining industry, who often use ants as indicators of how well their minesite restoration programs are performing.

This type of work is often contracted out to universities, CSIRO or state government agencies. There are now biological consulting companies that include terrestrial invertebrate surveys amongst the services that they offer. I know of several entomological laboratories that are hives of activity, employing parataxonomists or graduates to sort through boxes of pitfall traps and other types of samples. A disturbing trend that has come to light is the development of repetitive strain injuries, now known as "occupational overuse syndrome/ injuries", amongst the sorters. I am aware of three instances in my State alone. In all cases, this has been associated with sitting for long hours, day after day, picking out invertebrates from petri dishes or opening fruits to look for stored product pests. It appears that the repetitive wrist movement associated with transferring the specimens upsets the tendons in some way. Technically speaking, my EduSafe colleague tells me that this is down to: "head/ neck flexion to view samples through lenses on microscopes and/or prolonged wrist flexion with forceful ulnar deviation used to pick up samples with tweezers, or to slice into samples with scalpels when viewed under microscope". The situation can be so serious that the affected person may no longer be able to carry out this type

of work.

What can we do to prevent this problem happening? A number of simple precautions include:

- Use height adjustable microscopic equipment so that eye-pieces can be positioned to suit research staff of varying heights without compromising their head/ neck posture. At the same time, lowering the platform height of samples so they can be examined without the need for awkward wrist/ elbow/ shoulder postures to be adopted.

- The importance of supportive seating really cannot be overemphasised. Make sure the person is seated correctly on a chair with adjustable lumbar support to meet their postural requirements, and ensure they have opportunity to stand and stretch on a regular basis to relieve any lower back discomfort

Encourage staff to have frequent rest breaks (every 30 – 45min if performing tasks repetitively), and/ or offering job rotations on a similar basis to reduce muscle fatigue.

Some of these precautions require a modest expenditure on appropriate chairs, desks, foot-rests and monitor risers. The rest breaks may at first seem likely to reduce productivity. However, it must be remembered that the cost of prevention (through purchase of equipment/ reinforcing safe work practices) is much less compared to the cost of having valuable staff/ research time lost through injury. I wish you all incident-free biological surveys and entomological projects.

Jonathan MAJER

FROM THE EXECUTIVE

Thank you to those members who paid their subs for the first half of 2007. Some still need to attend to that and I look forward to receiving further subscriptions for the six months to June 2007 in the next month or so. If you think you have lost your invoice, contact me on thwaiteau@yahoo.com.au or at PO Box 2009, Orange NSW 2800 and I will send a duplicate.

Don't be alarmed when you receive another subscription invoice in early June. That will be for the full financial year, 2007/08. It is the last step in the process of bringing the membership year into line with the financial year, as agreed with the change in the Society Constitution at the 2006 AGM. We also think it will assist those located at universities to avoid the subscription notice reaching you just as the academic year finishes.

There have been numerous problems with members being unable to interpret from the information given on the fees invoice just what was required of them, especially if arrears were involved. The issue is complicated by us giving members the opportunity to select the Journal format they'd prefer, the "early-bird" discount and the need to add GST to subscriptions with an Australian address. The Executive has been addressing these problems and we'll do our best to make the invoices for 2007/08 more "member-friendly".

NEW MEMBERS

We welcome the following new Members:

Elected 8 February 2007

Dr Olivia Kvedaras was elected as a Full Member of the Society. Before her appointment by NSW DPI in late 2006 to pursue fruit fly research at Wagga Wagga Agricultural Institute in south-western New South Wales, she worked at Johannesburg and Mt Edgecombe in South Africa. She continues to serve on the Scientific Committee for the ICE to be held in Durban next year. She has travelled extensively and enjoys a wide range of sporting and leisure activities.

Tenille Neilsen is a new Student Member undertaking a Master of Entomology degree at the University of Queensland. She completed her BSc in Ecology at James Cook University in 2005 and has worked in both lab and field positions in Queensland. Her other interests include motorbike riding, jujitsu and collection and preservation of plants and invertebrates.

Elected 8 March 2007

Shae Callan is from Western Australia as was elected as a Full Member of the AES. He obtained his BSc/ BSocSci with Honours from Curtin University of Technology in 2004 and was awarded the Serventy Memorial Prize for his Honours project. He has continued to work through Curtin University undertaking surveys on ants and other invertebrates in interesting places like Barrow Island. In his spare time, Shae is a committee member of the Wilson Wetlands Action Group.

Viliama (Willy) Heimoana is a PhD student at Charles Sturt University, Orange and is a Student Member of the Society. He gained tertiary qualifications in Western Samoa, Germany, Queensland and New South Wales (Master's degree, UNE). He worked in Tonga before moving to Australia in 1999 and spent the next six years at Narrabri New South Wales in cotton entomology. There he spent much of his time evaluating insecticides under development, especially screening them for their impact on beneficial insects.

Elected 5 April 2007

Jo-Anne Deretic is currently studying a Master of Entomology at the University of Queensland whilst working as a wetlands native biodiversity officer with VIC DPI, based at Tatura.

Kristian Le Motte has recently completed his Master of Entomology at the Imperial College, Silwood Park. He is now a PhD student at Charles Sturt University, Orange, but is based at NSW DPI Gosford with Leigh Pilkington. He will be working on biocontrol in glasshouse vegetables.

AUSTRALIAN JOURNAL OF ENTOMOLOGY ACCESS

The entire set (Volume 1, 1962 onwards) of the Australian Journal of Entomology, including the first few volumes which were published as the Journal of the Entomological Society of

Queensland and the intervening volumes published as the Journal of the Australian Entomological Society, are now available on the Blackwells Website at http://www.blackwell-synergy.com/loi/AENor go to the Journal homepage (accessible from the AES website) and select "latest issue".

All those published prior to 1998 are freely accessible (funded by AES) while those published by Blackwells are subject to the current subscription requirements of the journal.

A comment and a link have been added to the AES website.

Murray FLETCHER

AGM NOTICE

The Australian Entomological Society Inc.
38th ANNUAL GENERAL MEETING
will be held in conjunction with the Scientific Conference (23-26 September 2007, La Trobe University at Beechworth Vic) at a time, date and venue to be announced

PROVISIONAL AGENDA

1. Opening and general announcements
2. Announcements of proxies and apologies
3. Deaths of members recorded since 36th Annual General Meeting
4. Minutes of 37th Annual General Meeting
5. Business arising from the minutes
6. Annual Report
   - Vice President
   - Treasurer
   - Chief Editor
   - News Bulletin Editor
7. Committee Reports
   - Conservation Committee Report
   - Education Committee Report
8. Proposed change to Constitution (as circulated to members)
9. Society Awards
10. Business arising from the 69th Council Meeting, Canberra
11. Announcements of Officer Bearers and Councillors for 2007-8
12. Appointment of Auditor
13. Report of the organising committee for 38th AGM
14. Report of the organising committee for 39th AGM
15. Other business (arranged with Secretary no later than 31 August 2007)
16. Close

REGIONAL NEWS

NEW SOUTH WALES

EMAI - Entomology Insecticide Resistance

Recently mirids have required more targeted control in Australian cotton. For this reason it is important to study mirids and their chemical control but they are hard to culture. **Grant Herron** and **Jeannette Rophail** NSW DPI EMAI, met with **Judy Nobilo** and **Mary Whitehouse**, CSIRO at ACRI Narrabri to discuss mirid culturing. Judy showed Grant and Jeannette her mirid culturing system from field collection to prodgeny production. Jeannette now intends to apply what she has seen to mirid culturing at EMAI.

Grant Herron and Jeannette Rophail teamed up with **Lewis Wilson** CSIRO for their annual collection of cotton aphid and two-spotted mite for resistance testing. The trio sampled cotton north of Narrabri as far as St George in Southern Qld looking for insects and mites. Populations for resistance testing were hard to find but several strains were successfully collected.

Flavie Vanlerberghe-Masutti INRA-UNSA "R.O.S.E." France, received a shipment of some 500 cotton aphid samples from **Martin M^{c}Loon** EMAI. This is a collaborative effort between Grant Herron, Lewis Wilson, **Martin M^{c}Loon** and Flavie Vanlerberghe-Masutti.

Martin McLoon has designed and tested a PCR to amplify the COI gene in aphids relevant to cotton. An REA of the PCR product that will differentiate cotton aphid from the other species. This test can then be used to identify cotton aphid from squished samples negating the need for live insect samples.

After competitive interview **Mr Thalavaisundaram Swaminathan** has joined the Entomology Insecticide Resistance team on a temporary basis

Charles Sturt University, Albury

Were you caught kissing under mistletoe at Christmas? While you were there did you notice any insects and spiders in the mistletoe? Finding out which insects and spiders inhabit box mistletoe is the focus of **Anna Burns'** PhD research. She has collected arthropod assemblages from box mistletoe and its eucalypt hosts in woodland remnants on farms. Anna is in the process of determining how the diversity and functional groups of the arthropods vary between box mistletoe and its hosts. Preliminary results indicate that the density of the arthropods sampled is higher on the eucalypts than the mistletoe. Hemiptera is the most abundant order on both the mistletoe and eucalypts, due to the abundance of psyllids. Future analyses will also evaluate the role of spatial scale and neighbourhood effects in driving diversity patterns in these "arboreal islands".

Next page – Top : Unidentified spider on box mistletoe. Bottom: Lerp & psyllid instar on eucalypt leaf © Anna Burns

University of New England, Armidale

In the Insect Ecology Lab**, Dr Nigel Andrew** has recently appointed **Dr Kerri Clarke** as a research assistant on his ARC Discovery project. Kerri has a systematics background which will come invaluable when identifying Acacias and insect herbivores from four different climate zones across the eastern half of Australia. The Insect Ecology lab also has three new Honours students that started in February, all supervised by Nigel. **Mitch Smidt** is assessing insect herbivore communities across the Acacia phylogeny in the New England Region of NSW. **Amanda Guest** is evaluating the use of morphometrics, functional groups and nutritional groups in assessing insect species relationships with their environments. Amanda is co-supervised by **Dr Heloise Gibb** and **Dr Saul Cunningham** at CSIRO Entomology Canberra. Nigel and Amanda visited CSIRO Entomology in February to develop sampling protocols and begin pitfall trapping around Canberra and Boorowa. **Tom Mooney** is comparing dung beetle assemblages and dung specificity between pasture and native forest on the New England Tablelands, NSW. Tom is co-supervised by **Karl Vernes** also at UNE. Finally, **Michelle Yates**, an undergraduate student in the Insect Ecology Lab is also conducting a six month project assessing the ground-dwelling insect diversity and morphology associated with pasture and remnant vegetation from North-Western NSW. Hopefully there will be some interesting results coming from these projects over the coming months.

Nigel ANDREW

Orange Agricultural Institute

With nearly 250 pages already published from her thesis, Birgit Löcker graduated with her PhD on 16th March from the University of Sydney (see photo). This was the last graduation ceremony held by the University of Sydney in Orange after the transfer of the campus to Charles Sturt University. Birgit is now working part time with OAI while she awaits her first born due in July. Peter Gillespie and several other members of the Collections Unit have been making regular trips to Sydney to undertake a Hazard Site Surveillance project looking for a range of target exotic pests and diseases. One discovery of interest was a population of *Magia subocellata*, a species of lophopid planthopper known only from North Queensland, living happily in the tropical glasshouse in the Royal Botanic Gardens, Sydney (see http://www.agric.nsw.gov.au/Hort/ascu/fulgor/magiasub.htm).

Murray FLETCHER

TASMANIA

University of Tasmania, School of Agricultural Science and TIAR

Geoff Allen and **Paul Walker** continue to work on the info-chemicals of pests of eucalyptus plantations with the help of **Stephen Quarrel.** They are currently setting up a new room which will house a wind tunnel and olfactometer for behavioural studies. **Noel Davies** (Central Science Laboratory) is in the process of installing a thermal desorption unit on the GC for this project which will greatly assist in the collection and analysis of volatiles from insects and plants to look for the presence of pheromones and/or kairomones. In February, Geoff Allen hosted **Dr Keiji Takasu** (Department of Applied Genetics and Pest Management, Faculty of Agriculture, Kyushu University) who was visiting the School of Agriculture Science and met Geoff and Paul to talk about their current research.

Above: Geoff Gurr and Murray Fletcher with a happy Dr Birgit Löcker

Forestry Tasmania

Jane Elek (Forestry Tasmania), **Geoff Allen** and **Vin Patel** (University of Tasmania, TIAR and CRC for Forestry) with the help of **Bron Appleby** and **Liz Pietrzykowski** have been investigating the uptake and toxicity of imidacloprid injected into several eucalypt species. Two of the eucalypt species are being targeted to test out their potential to act as 'lethal trap trees' in *Eucalyptus nitens* plantations for controlling adult chrysomelid leaf beetles. Bioassays, using *Paropsisterna (Chrysophtharta) bimaculata* as the test insect, are being conducted to determine the dose response of chrysomelids to leaves from injected trees while **Lisa Bird** is conducting the chemical analysis of leaves to measure the foliar concentration of imidacloprid. The injections of a concentrated formulation of imidacloprid appeared to be successful but the resulting toxicity of the foliage was lower than hoped for. Behavioural choice tests have shown that the beetles do have preferences between different species of foliage, and also eat more of the untreated foliage after they have tasted the treated foliage. The challenge will be to achieve high enough concentrations of imidacloprid in the foliage to control the beetles during their first feeding effort.

Sue Baker graduated from her PhD at University of Tasmania in December 2006. Her thesis is titled "Ecology and conservation of ground-dwelling beetles in managed wet eucalypt forest: edge and riparian effects". She was supervised by **Alastair Richardson**, **Leon Barmuta** and **Peter McQuillan**. As well as quantifying edge and riparian influences on beetles, the project assessed the effectiveness of wildlife habitat strips for beetle conservation, in terms of their width and landscape positioning in clearfelled logging areas. Sue now works for Forestry Tasmania as Research Officer (Variable Retention biodiversity), bringing together biodiversity research on alternatives to clearfelling.

Kevin Bonham recently joined **Russel Lewis-Jones**, **Lynne Forster** and **Lisa Joy Boutin** sorting beetles from pitfall samples from the alternatives to clearfelling trials in the Warra LTER site. Kevin replaces Kate O'Brien. Beetle sorting and identification of indicator taxa (carabids, weevils and leiodids) is progressing well.

Simon Grove has been busy with a range of projects, including assessing alternatives to clearfelling, giant velvet worms, and Mount Mangana stag beetles.

Lynne Forster, with some help from **Sue Baker**, has also been identifying invertebrates from bark samples taken from different provenances of *Eucalyptus globulus*. This is part of a larger University of Tasmania project managed by **Bob Barbour** and **Brad Potts**, investigating the extended phenotype of *E. globulus*.

Paul WALKER

AUSTRALIAN CAPITAL TERRITORY

ANIC

We returned to work after the Christmas break to a few very welcome days of rain, which restored some of the usual green colour to our dry and dusty town. The wet weather went a bit too far on February 27th when a violent storm hit Canberra overnight. Many buildings in the city were extensively damaged by hail and flooding, including many in ANU just across the road from ANIC, and large numbers of trees were uprooted around our site. ANIC suffered some flood damage to carpets in several parts of our buildings, and minor damage to some old equipment stored in the basement, but the collection itself survived undamaged.

Work on installation of the compactus system for parts of the collection has begun. This will cause considerable disruption, both because some collections will be inaccessible, and because many of our staff will be preoccupied in the work of moving collections to make room for the builders. We repeat our request for visitors and people seeking major loans to postpone their visits or requests until at least July if possible.

Stephen Cameron joined ANIC in January to take up a new indefinite position in molecular systematics. Stephen most recently spent 4 years as a postdoctoral fellow at Brigham Young University in the United States where he worked on mitochondrial genome evolution across insects. This project was part of one of the NSF-Tree of Life projects and has generated some extremely large data sets for examination of inter-ordinal and deep intra-ordinal relationships among the major insect groups. Stephen is looking forward to continuing his work on insect mitochondrial genomics as well as branching out into a range of systematic research projects with other ANIC scientists.

We farewelled technician Ben Boyd, who left to take up a position with AQIS in Sydney. Ben will be working in their insect collection, identifying insects intercepted in quarantine, and curating the collection. We confidently expect that he will maintain contact with his friends in ANIC and other insect collections around the country. On the positive side, we welcome Acting ANIC Manager Wendy Whitby, who is helping out with the usual wide range of jobs that are needed to keep the collection running. We also welcome Dr. Darren Peck, who will take on a variety of important functions in a position funded by AQIS. Darren will develop a diagnostic service using the remote microscope, as well as handling routine identifications and inquiries, and taking care of other types of interactions between ANIC and AQIS.

Paul Zborowski and Ted Edwards' exciting new book *A Guide to Australian Moths* has reached the proof stage and will be published by CSIRO Publishing in May. The book combines Paul's beautiful photos of live moths with text and captions by Ted. It is based on the authors' life-long passion for moths, and provides a wealth of biological information on 69 of the 85 families of Australian moths at a level suitable for a general readership. Marianne Horak and Ted Edwards, with help from Don Sands, Paul Grimshaw, Max Whitten, Penny Edwards and Klaus Gottschaldt, have been setting numerous Malaise and emergence traps near Noosa in their quest for the adult of the primitive Cooloola Kin Kin moth which is so far only known from larvae.

Preparations are well under way for a major expedition to Cravens Peak in western Queensland. ANIC staff will join colleagues from other institutions in a scientific study managed by the Royal Geographical Society of Queensland, with the objective of collecting Lepidoptera, beetles, semi-aquatic bugs, and spiders, to contribute to several current projects.

Steve Shattuck attended a Cairns meeting of an inter-departmental Science Advisory Panel to discuss strategies for control of the Electric Ant *Wasmannia auropunctata*. This invasive pest was identified in Cairns in May 2006, where it has been causing painful stings to members of the public. Steve reports that QDPI is making good progress in keeping it under control. Adam Slipinski was also travelling, visiting museums in Poland, Amsterdam, Leiden, and London, searching for new adult and larval Coccinellidae to include in his monograph of the family. He was also looking for specimens of several critical taxa for the Coleoptera Tree of Life project. Laurence Mound and Alice Wells spent a week at Universiti Putra Malaysia, teaching a thrips course to 30 South East Asian participants funded by APEC. This was followed by a further week at Lamington National Park on the biodiversity survey organised by Roger Kitching. Unfortunately, the number of thrips species was only a small fraction of the number of mite bites they recorded. Rolf Oberprieler visited Willi Kuschel in New Zealand, to discuss relationships between the Australian and New Zealand weevil faunas, and the classification that will be used in the next volume of *Australian Weevils*. Rolf also reports that the destructive Eucalyptus snout weevil *Gonipterus scutellatus* has turned out to be a complex of several species, and work is in progress to sort them out.

David Yeates was in Adelaide to attend the Annual General Meeting of the ARC Environmental Futures Network, and a workshop on the use of molecular data for estimation of divergence times. He also took part in the Southern Connections conference, and he reports that one of the highlights was a symposium on Gondwanan relationships. New molecular data are suggesting that some of our ideas about Gondwanan vicariance will have to be revised, and that long-distance dispersal is more important than we had realised.

Recent visitors included Dr Lars Krogmann of Hamburg, who is currently working in a post-doctoral position at the University of Adelaide. Lars spent a week in ANIC sorting and identifying spider-hunting wasps of the family Pompilidae as part of his revision of the Australian members of the family, and searching for specimens of the rare wingless wasp family Rhopalosomatidae. John Lawrence made one of his regular visits to continue work with Adam Slipinski on the Coleoptera Tree of Life Project. Martin Steinbauer and Maria Hobbs visited to identify a collection of moths collected by light-trapping in the Bourke area, as part of Alistair Drake's work on insect-monitoring radar at the University of New South Wales. Farzad Jahromi of Charles Sturt University came to talk with several ANIC scientists to collect background information for the entomology component of CSU's agriculture degree. Pawel Szymkowiak of Poznan, Poland, spent a week examining our spider collection to find and identify specimens of Thomisidae for his work on a revision of the family. Coleoptera visitor Hong Peng has returned to Beijing after completing descriptions of 70 species of *Diomus* (Coccinellidae). She hopes to come back next year to finish off the remaining 30 species. Student Francois Dolambi from Montpellier, France, is visiting Adam Slipinski to work on the systematics and biology of *Bucolus* (Coccinellidae), whose larvae are ambush predators of ants on tree trunks. Len Willan visited in early March with

his new camera, and together with Ted Edwards, started work on expanding the website 'Australian Moths Online' into the world of microlepidoptera.

Above: Arachnologists Pawel Szymkowiak and Bruce Halliday take a lunch break in the ANIC courtyard

Bruce HALLIDAY

QUEENSLAND – FAR NORTH

AQIS – Cairns

Breaking news: Cairns Tsunami

This just in from **Tony Postle**: "The office staff were first informed of the impending tsunami at 0800. Although the more-prepared donned inner tubes and awaited the apocalypse in the car park, we were all ordered home at 0920 (ten minutes before the wave was due to hit). However, the PR officer and myself decided that the end of the world would be more acceptable over a hot cappuccino and a muffin. As we couldn't find a Cairns coffee shop more than three metres above sea level, we repaired unto nearby chateau Postle where, fortified with freshly brewed coffee, tea and choc bikkies, we walked up the hill fronting my house to watch any inundations of the airport (and AQIS office) from relative safety. By 1030, it was apparent that judgement day had been postponed and so, in the absence of a practical alternative, we picked up our shackles and crooning a plantation song, clinked back to the AQIS incentive desks. Astonishingly, there were only half-a-dozen people in the office and although a few more trickled in during the next hour or so, the AAC building remained relatively quiet for the rest of the day. The other staff must have been overcome by emotion…"

JCU – Cairns

On the tsunami - A series of small, but significant waves reaching a few decimetres in height did actually reach the coast, and were caught on film by JCU research fellow **Dr Rob Beaman**. Dr

Beaman will use the information collected to suss out the role of the Great Barrier Reef in delaying tsunami arrival times along the eastern coast. More information, plus a video, is available on the JCU website. In hindsight, we can breathe a sigh of relief that no destructive tsunami eventuated. Now the onus is on the entire Community, particularly the powers that be, to ensure that all residents in affected areas are prepared and suitably briefed for such an event, and avoid the absolute chaos that prevailed in this instance. What to do with those insect cabinets??

On an insect note, the island sugarcane planthopper, *Eumetopina flavipes*, seems to really love laboratory living. PhD candidate **Kylie Anderson** has been successfully running life history trials with the bug inside a quarantine insectary at JCU. The planthoppers were brought into the lab last December from a population at Bamaga. Drought, intense light, intense cold, over-fertilisation and mite infestation have affected the potted sugarcane plants and in-situ pest, but the planthoppers soldier on (thank goodness!), happily reproducing. **Philip Newey**, also a PhD Candidate, has set up the 'Ant-e-chamber', inside which he is housing approximately 45 baby colonies of *Oecophylla smaragdina*. Each colony is housed in one box and contains about one or two dozen workers. A truly amazing sight!

DPI&F Mareeba

In January, **Ross Storey** received an Australia Day Community Service Award for, amongst other things, his tireless work in setting up the North Queensland branch of the Association of Australian Assistance Dogs (ASDOGS) in 2000. Mareeba Mayor Mick Borzi, who is the ASDOGS (NQ) patron, presented Ross with the well deserved award. ASDOGS (NQ) is an organisation dedicated to the training and promotion of accredited Assistance Dogs for people with disabilities, in a bid for them to achieve a greater independence. ASDOGS (NQ) Inc. is a charitable organisation, and if you want to learn more, visit the ASDOGS (NQ) website at http://www.asdogsnq.org/index.html. More on Ross. Although born and educated in Canada, Ross has lived and worked for the last 30 years in Queensland, Australia. Ross has maintained a long interest in Scarabaeidae, especially the Scarabaeinae and Aphodiina where he has described four genera, 57 species, and proposed one aphodiine tribe (Stereomeini) with Henry Howden. Ross has been curator and collection manager of the Queensland Department of Primary Industries insect collection in Mareeba for the last 25 years. Specimens housed in the collection are almost entirely Australian (a few examples of extra-Australian Scarabaeinae are kept), many of which were collected by Ross. Specimens are sent regularly on loan to Australian and overseas specialists for taxonomic study.

Bruno Pinese retired from DPI&F in Mareeba on 28 February 2007, the same day as **Geoff Waite** in Nambour. Bruno completed an Agricultural Science degree at UQ and joined DPI at Applethorpe in 1974. He developed a very applied approach to research during his time in the Granite Belt, as face-to-face contact with growers was a feature of entomological activity there under **Merv Bengston's** influence. Soon after the completion of a new home, which in those days was a signal for transfer in DPI, Bruno moved to Innisfail in 1977 to work in the footsteps of **Bernie Franzmann** and **John Rogers** on bananas. In 1980, to the angst of some in the banana industry, Bruno transferred to Mareeba where entomology in the north was being consolidated under **Ian Cunningham**. While Bruno continued to work predominantly on bananas, he also ventured into research on pests of avocados and lychees. His studies on cucurbits with plastic mulches led to effective control measures for the prevention of an aphid-transmitted virus. In bananas, Bruno developed management strategies for a range of pests, which reduced the overall dependence on chemical control. It is notable that his research on bell injection for control of banana scab moth and thrips resulted in both a substantial reduction in the quantity of insecticide used (sometimes quoted as 90%) and worker exposure, and permitted IPM in the crop to move to a new level. In 1994, Bruno and **Richard Piper** published a book on banana

Above: Tsunami waves at Yorkeys Knob Marina, Cairns. Bottom: Philip Newey's 'Ant-e-chamber'. Opposite page top: Ross Storey with his Australia Day Community Service Award (NB. Phasmid on t-shirt). Opposite page bottom: Bruno Pinese farewelling collegues at DPI&F Mareeba

pest management, which continues to receive accolades. In 1995, after the detection of Papaya fruit fly in north Queensland, Bruno undertook a series of laboratory and field trials to verify the non-host status of hard green bananas. This work was accepted by the other states and re-established the banana trade without the need for a post-harvest treatment. Bruno took over the reins of mango entomology with the retirement of Ian Cunningham in 1997. He has made considerable strides towards the improved control of mango scale, the major pest, and laid the groundwork for IPM advancement in the crop. A recently completed project on redbanded mango caterpillar, an exotic pest now resident on the tip of Cape York, has resulted in the identification and production of a pheromone which can be used as an effective monitoring tool. Bruno has also recently led an AusAID project in the Philippines

aimed at an expansion in the mango-producing areas declared free of mango seed and pulp weevils. Bruno will continue to act as a consultant on this project until the completion of the next phase. Other projects on avocado fruitborer, a new pest to emerge on the Atherton Tableland in the late 90's, and on an outbreak of Crazy ant in Cairns in 2001, both led to successful outcomes and confirmed Bruno's entomological versatility. In retirement, Bruno plans to enhance his wood-working skills and blaze across the Atherton Tableland on a relatively new Moto Guzzi. He is heading off in April on a trip back to Italy after a long absence to catch up with relatives. Good luck Bruno.

QDPI&F -South Johnston

David Astridge met with Geoff Waite, Bruno Pinese and Harry Fay in Mareeba to discuss ACIAR project plans and to farewell Geoff and Bruno. Geoff and Bruno will be greatly missed within DPI&F but we wish them all the best for their travels for their future retirement. Harry Fay will be taking over some of Geoff's pheromone work for fruit spotting bugs and mango seed weevil. David has been busy with trips to the Philippines for an ACIAR IPM project in mangos. A

group of Filipinos also visited Australia to visit David and the IPM team led by **Dr Anastasia Nortarte**. The purpose of the trip was to work on the current IPM project and develop future ACIAR projects for Australia and Philippines. The group also caught up with Bruno and Harry in Mareeba to review current project activities and **Peter Leech** in Cairns to examine post harvest research activities in fruit flies.

Scientific Advisory Services

Richard Piper from Scientific Advisory Services attended the Fruit Fly Symposium in Salvador Bahia Brazil in September 2006 where he displayed proofs of new posters on world fruit fly pests in Spanish and Portuguese for comment. The Australian contingent also included **Vanessa Cockington** (SARDI) and **Ernie Steiner** (Operations Manager, Sterile Insect Technique (Medfly), Western Australia Department of Agriculture and Food). The Bahian food and hospitality knew no bounds and the Symposium organised by **Dr Aldo Malavasi** was attended by more than 240 fruit fly workers. In December Richard visited the International Atomic Energy Agency (IAEA) in Vienna as part of a collaborative project to produce information posters for quarantine personnel on the Old World and New World screwworm flies. IAEA entomologists **Dr Udo Feldman** and **Dr Marc Vreysen** are co-ordinating this project. Richard reports that the vegetation in the Tully/Innisfail area is gradually recovering after cyclone Larry in March 2006 and the iconic Ulysses butterfly (*Papillio ulysses*) and Cairns birdwing (*Ornithoptera priamus*) are once again gracing the skies. In March, Richard attended the farewell function at Mareeba for DPI&F entomologist Bruno Pinese who mentored him in his early days in banana entomology.

Kylie ANDERSON (and thanks to the Far North Entomologists, particularly Harry Fay, for this months contributions)

WESTERN AUSTRALIA

Curtin University of Technology

Brian Heterick is almost ready to submit to the WA Museum for refereeing his monograph on the ants of southwestern Australia. The work is being prepared for publication in the 'Records of the Western Australian Museum, Supplement' series. Included is a key to workers of all currently recognized ants, both described species and undescribed morphospecies, found in the region (around 500 in number). Other features include over 700 line-drawings, SEMs of diagnostic features of 10 southwestern ant subfamilies and discussions concerning various aspects of importance to both students of ants and the general public.

Under the student exchange between Curtin and the Federal University of Vicosa, Brazil, **Nicinha de Souza** has arrived to work on the biodiversity value of eucalypt and pine plantations that have been put in near Esperance to lower the water table and reduce waterlogging/salinity problems.

University of Western Australia

School of Population Health

Andrew Jardine has been leading the way in establishing Public Health Entomology as a strength at UWA's School of Population Health: He has just submitted his PhD under the watchful eyes of **Phil Weinstein** and Mike Lindsay. Andrew investigated the extent to which dryland salinity and waterlogging (resulting from land clearing for agriculture since European

settlement in inland south west WA) has led to succession in mosquito species. The trend is towards increasing dominance of *Aedes camptorhynchus*, the principal Ross River virus (RRV) vector in the region, and thus an increased potential for RRV transmission. Andy's work represents the first attempt to prospectively investigate the influence of secondary soil salinity on mosquito-borne disease by combining entomological, environmental and epidemiological data. For his efforts he has now been offered a teaching and research position in the School – who said there were no jobs for entomologists?

Left: Mosquito trap in salinity devastated landscape, S-W Western Australia. (Photo by Scott Carver).

Clarissa van Schie a fourth year student at the University of Western Australia has also been studying mosquitoes under the supervision of **Phil Weinstein** and **Helen Spafford Jacob** (School of Animal Biology). Clarissa has just finished a study to determine the salinity tolerance of *Aedes camptorhynchus* from different regions of southwest Western Australia. Clarissa found that *Aedes camptorhynchus* is capable of surviving very high salinities and was the most dominant mosquito species in southwest Western Australia and a major vector of human diseases.

VICTORIA

IPM Technologies Pty Ltd

IPM Technologies Pty Ltd is currently involved in a range of entomological projects across Australia and New Zealand. We are currently engaged in testing of pesticides for effects on beneficial species in horticulture, and Peter Cole is conducting the bioassay work for us in collaboration with Amanda Kobelt and Alan Yen of DPI. The aim here is to provide accurate information about pesticides (particularly insecticides and fungicides) to growers and industry wanting to use IPM. Paul Horne and Jessica Page are also involved in several projects demonstrating IPM, including demonstrating IPM in brassica crops across Australia, developing IPM in arable crops in New Zealand, and developing and demonstrating IPM in field crops in SE Australia. We are also looking at cultural control options for pests of vegetable crops. In addition to research projects a constant item for us is crop monitoring and advice for a range of horticultural and broad-acre crops. Neil Hives, based near Ballarat, has expanded our capacity to deliver this expert advice across western Victoria. In other areas Paul, Jessica, Peter and Anna Cutler monitor crops and give advice to growers. Kate Lorey has recently taken over control of our laboratory colonies.

Department of Primary Industries

Dr Yair Ben-Dov (Agricultural Research Organisation, The Volcani Center, Bet Dagan, Israel), a leading Coccoidologist and his wife are currently holidaying in Australia. Yair spent a few days in Melbourne with Mali and Adrian Rakimov, a Ph.D. student working on soft scale insects in Australian vineyards, examining the DPI coccoid collection at Knoxfield. Yair gave an interesting talk to DPI staff and students on ant - scale insect associations in Africa. After the Melbourne

stay Adrian drove them up to Mildura to show his field sites and to continue discussions on various issues relating to his project on grapevine scale insects. Adrian says he benefited immensely from Yair's visit.

Amanda KOBELT

CESAR, University of Melbourne

We have had a very busy time lately, moving to our expansive new premises at Melbourne University's Bio21 Institute where our facilities include a well resourced insectary in addition to new laboratories and offices. The move finally brings the old La Trobe node of CESAR into the same building as the Melbourne node. The Special issue of the Australian Journal of Experimental Agriculture (Volume 47) devoted to Invertebrate Indicators of Sustainable Agriculture, guest edited by **Linda Thomson** and **Ary Hoffmann** together with **Maurizio Paoletti** of the University of Padua was published in March. Professor Paoletti visited us in October and November 2006 and continues his interest in detritivores in Australia. **Paul Umina** is continuing his efforts to facilitate a more coordinated and consistent approach to extension and adoption of pest management research into the grains industry. Last year Paul launched the successful 'PestFacts South-Eastern' service. PestFacts is distributed as an electronic newsletter with an aim to help growers achieve maximum yield and quality for the lowest cost by providing timely information about pest outbreaks, effective controls and information about the latest research findings. The service is supported by the GRDC's National Invertebrate Pest Initiative (NIPI) and reached in excess of 600 advisers, consultants and growers in 2006. Similar services are also run in other states, including SA and WA.

Paul has also presented some the latest research findings from CESAR as various workshops and industry updates, including the Birchip Cropping Group Expo, the Landmark Pasture Conference, the Victorian Irrigated Cropping Council Grower Update, GRDC Technical Updates for Growers, GRDC Research Updates and the National Invertebrate Pest Initiative Workshop. As well as continuing the PestFacts service in 2007, Paul is also planning to run training workshops in conjunction with SARDI. These will provide advice on basic diagnostic characters for correct identification of pest and beneficial insects, as well as covering insecticide resistance and IPM issues.

Linda THOMSON

GENERAL NEWS

Aussie kids measure millipede's mayhem

Every autumn, millions of little legs invade Australian houses as the feral Portuguese millipede goes on the march, but this March hundreds of CSIRO's Double Helix Science Club members and students will be waiting.

Millipede Mayhem is the latest Double Helix National Experiment where students, families and schools work with CSIRO to map the invertebrate's spread. The data will become part of scientific research examining its distribution, morphology and adaptations.

"The survey is an important step in controlling this invasive pest," says CSIRO entomologist Dr Geoff Baker who first studied the millipedes 35 years ago.

Portuguese millipedes mass in plague proportions in late summer and autumn, causing havoc for homeowners.

In extreme circumstances they have brought rail systems to a halt by smothering tracks and making them too slippery for the trains to gain traction. Little is known about more complex interactions the invasive invertebrate has with our ecosystems or where it has spread since the last national survey 22 years ago.

Members of the public interested in registering to take part in the survey should visit www.csiro.au/education/MillipedeMayhem.html. More information is available at www.csiro.au/helix

High quality images of kids with millipedes, electron micrographs and a range of images are available.

SOCIETY AWARDS

CALL FOR ENTRIES: PHIL CARNE PRIZE

The Society's Phil Carne Prize is aimed at fostering high quality entomological research in young scientists. The name of the prize celebrates contributions made by Dr Phil Carne to the science of entomology and the Australian Entomological Society.

The prize is open to any honours or postgraduate student enrolled in an Australian University, either full-time or part-time, who has not submitted their thesis by the closing date. Entrants do not have to be members of the Australian Entomological Society.

Entries for the prize should be in the form of a scientific paper that deals with research on any entomological topic (or allied group of terrestrial organisms such as mites or

spiders). The paper can be in the form of a scientific manuscript ready for publication, a paper that has been accepted for publication or a paper published since the beginning of the previous year to the closing date, but must result from the student's higher degree studies.

Entries are to be the sole work of the entrant, apart from the normally accepted input of academic supervisors, and are to be based on work undertaken while enrolled as a student. They will be judged on their overall scientific merit by a committee of at least three people to be appointed by the Society's President.

Three copies of entries must be submitted to the Secretary of the Society by the closing date (**31st July 2006**) and be accompanied by a completed application form (see AES website at http://www.austentsoc.org.au and go to the Society Information page).

The prize will be in the form of a certificate and will also include cash remuneration to the value of $300. The winner will also be invited to present their paper at the Society's Annual General Meeting and Scientific Conference, and will receive a maximum of $1,000 towards conference expenses (registration, travel, accommodation) on receipts.

2007 ILLUSTRATION AND PHOTOGRAPHIC COMPETITION
A competition to encourage and recognise high standards of entomological illustration

In conjunction with the Society's Annual Scientific Conference and AGM, the Society invites unpublished entries to this competition which will be judged and displayed at the Conference in Beechworth in September 2007. The competition is open to members and non-members of the Society who are not employed or contracted as professional illustrators for fee or reward. Entries, up to three per entrant, must be whole body (dorsal or lateral views) taxonomic illustrations of insects or other invertebrates. The mounted illustrations should not exceed 21 x 30cm (approximately A4 size) and must be suitable for reproduction after reduction by 50%. Entries must be in the hands of the Conference Organiser by the date advertised on the conference website.
Postal entries must be carefully packed and include stamps or postal order sufficient to cover the cost of return postage, where necessary.

CATEGORIES

Student Illustration Section
Colour
Black and White

Open Illustration Section
Colour
Black and White

Photographic Section

Each entry is to be accompanied by the following information: Name of entrant; Postal address; Category of entry/entries; Current enrolment details (if a student); Scientific name of species illustrated

The Society has usually made available $100 for First Prize and $50 for Second Prize in each of the four illustration categories and $100, $50 and $25 for First, Second and Third Prizes in the photographic section. Highly commended certificates will also be awarded where appropriate. The judges retain the right not to award all prizes if entry numbers or standards are not sufficient.

The Australian Entomological Society shall have the right to display selected works in public and to reproduce the illustrations, with appropriate acknowledgment, on Society goods which it sells and in magazines for a fee.

CONFERENCES

Australian Entomological Society's Conference

Beechworth 23 - 26 September 2007

La Trobe University

Expression of Interest

Expression of Interest forms are available at http://aes2007.org/eoi.php

Call for Abstracts

Abstracts are now being accepted. They can be submitted at http://aes2007.org/abstracts.php

PREPARATION OF ABSTRACTS

Abstracts are required for all presentations, including posters.

Deadline for submission of abstract: **14 July 2007**

Abstract:

The Abstract should comprise three paragraphs (Title; Authors; and Abstract), laid out as in the following example. Please follow the guidelines below. For oral presentation please underline the presenting author.

Please note a prize will be awarded to the best Student Oral and Poster Presentation

ICE 2008

July 6 - 12, 2008
Durban, South Africa

www.ice2008.org.za

XXIII International Congress of Entomology

INVITATION

Hosted by

The Entomological Society of Southern Africa

To be held at the International Convention Centre, Durban, South Africa.

We are delighted that the Council for International Congresses of Entomology has decided to select South Africa as the site for the next ICE. The Entomological Society of Southern Africa will ensure that this congress lives up to the best traditions of previous congresses and that the scientific programme will have a significant impact on the development of the discipline for the benefit of the peoples of the African continent and elsewhere.

Africa is the only continent that has yet to host an International Congress of Entomology. The hosting of such an important event will undoubtedly be of enormous benefit in generating solutions to the many pressing entomological challenges facing the continent, especially those related to human health, food security and the documentation of its hugely diverse but poorly known arthropod fauna.

The Congress will also provide a unique opportunity for African scientists to meet and interact in large numbers with entomologists from across the globe. We urge our colleagues throughout the world to use this opportunity to get a glimpse of the continent's rich and fascinating insect fauna and to enjoy the hospitality of their African friends.

Robin Crewe
President: ICE 2008

Scientific Programme

The Scientific Programme covers all aspects of Entomology. You are invited to submit suggestions for subjects and possible organisers of symposia that will fit into the sections listed on our website.

South Africa A World in One Country

Durban, Gateway to the Kingdom of the Zulu has much to offer the visitor to South Africa. Nestling on the shores of the warm Indian Ocean, the city has golden beaches, beautiful parks and gardens, museums, theatres, excellent sports facilities and world class shopping malls.

Modern hotels are located in close proximity to the International Convention Centre Durban and a superb air and land infrastructure exists.

A variety of organized tours will allow visitors to view our rich and diverse cultural, historical, geographical and natural attractions. Outstanding wildlife game reserves are just a few hours from the city centre.

The exciting accompanying person's programme will give you and your companion a taste of Africa's warm and wonderful hospitality

For more information about **ICE2008** please visit the Congress website: www.ice2008.org.za

Entomological Society of Southern Africa

Congress Organisers:
Turners Conferences & Conventions (Pty) Ltd
PO Box 1935, Durban 4000, South Africa
Tel: +27 31 3321451 Fax: +27 31 3686623
Email: info@ice2008.org.za

THE INSTITUTE OF FORESTERS OF AUSTRALIA
WA DIVISION

5 - 7 November 2007

borers and rots in Eucalypts CONFERENCE

Commercial Management Issues

call for papers

introduction

The Western Australian Division of the Institute of Foresters will hold a Conference on Borers and Rots in Eucalypts.

Keynote speakers will head the discussion supported by other speakers.

The conference is planned for Monday 5 November through to Wednesday 7 November 2007. The first two days will be spent inspecting problems in eucalypt plantations, native forests and saw mills in the south west of Western Australia and will be followed by a plenary session in Perth on the Wednesday.

The reduced availability of large sectioned defect-free timber from old-growth eucalypt forests has made it a priority to increase the commercial value of timber from plantations and regrowth native forests where damage by borers and rots has become increasingly evident in both commercial plantations and regrowth forests.

Problems associated with borers and rots in both plantation and native forest eucalypts have been recognised and studied for decades in WA. Unfortunately little progress has been made in reducing the commercial damage caused. The objective of the conference will be to seek commercial management solutions, by pooling widespread experience, thereby adding value to the commercial eucalypt resources.

I would like to invite your participation by submitting an Abstract in one of the subjects listed.

I look forward to hearing from you.

Phil Shedley
Conference Convenor

venue

The main venue for the Conference will be the Training Centre at the office of Department of Environment and Conservation (formerly CALM) in the suburb of Kensington (Perth) on Wednesday 7 November 2007.

field trip

The Conference will begin with a two day field trip to the Pemberton region to inspect problems in eucalypt plantations, native forests and sawmills.

subjects for discussion

- Summary of past and present research
- Economic costs and market impact
- Options for control

important dates -

submission of abstract: 29 June 2007
notification of acceptance: 21 July 2007

THE INSTITUTE OF FORESTERS OF AUSTRALIA - WA DIVISION

borers and rots in Eucalypts CONFERENCE

Commercial Management Issues

call for papers

abstract format

Abstract submissions are invited for consideration by the Conference Papers Committee. It is expected that accepted papers will be published in the Conference Proceedings.

It is expected that presenters will have 20 minute timeslots for presentation, questions and discussion. Each paper should support one of the topics listed above.

preparing your abstract

The purpose of the abstract is to define the precise subject of the presentation for potential inclusion into the program. No acknowledgements, figures or references should be included.

Include the names of all co-authors plus affiliations and addresses for general correspondence (including email address).

To assist the papers committee, a brief personal profile (maximum 100 words) is required from the presenter with the abstract.

abstract specifications

Font: Arial

Title: 12 pt BOLD CAPS, centred

Presenter: 11pt italics, centred

Text Body: 11pt regular style, single spaced, justified

Spacing: 1 line space under title and between author details and body of text

Length: maximum 250 words

Margins: A4 paper, 25mm margins

Theme: identify the preferred theme for the paper

note to authors

As a commitment to support the conference, authors of accepted papers are expected to register and pay for the full-time program or the day of their presentation. Other costs to attend (ie travel and accommodation) must also be self-funded.

The fulltime registration fee, inclusive of the field trip, is expected to be approx $440 inc GST. The one-day registration fee is expected to be approx $275 inc GST.

abstract submission

Abstract submissions to be sent by 29 June 2007 as a single email attachment, saved as a Microsoft Word document, to the following email address: promaco@promaco.com.au.

For inserted characters use only 'Symbols' type fonts. Name the file bor followed by the first four letters of the surname of the presenting author, followed by the author's first initial. For example **borcitij.doc** for an abstract with the presenting author Jane Citizen.

To assist you, an electronic abstract form with style guide may also be downloaded from the website: www.promaco.com.au/2007/borers or may be requested by email from promaco@promaco.com.au. Instructions for email submissions are included in the file.

THE INSTITUTE OF FORESTERS OF AUSTRALIA WA DIVISION

borers and rots in Eucalypts CONFERENCE

Commercial Management Issues

Detach and return to:

Promaco Conventions Pty Ltd
ABN 66 008 784 585
PO Box 890, Canning Bridge
WESTERN AUSTRALIA 6153
Tel: 08 9332 2900 Fax: 08 9332 2911
Email: promaco@promaco.com.au

5 - 7 November 2007

registration of interest

For more information, please complete and fax or mail to Promaco Conventions or register your interest online at www.promaco.com.au/2007/borers

Name: .....

Organisation: .....

Postal Address: .....

Country: ..... Postcode: .....

Tel: ..... Fax: .....

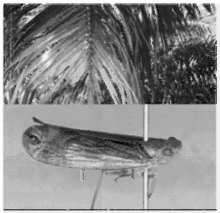
Email: .....

I am interested in:

☐ Attending ☐ Submitting a Paper *(abstract enclosed)*

Topic: .....

www.promaco.com.au/2007/borers



Taste for adventure?

Expertise in insect ecology/pest management?

Postdoctoral Research Fellow/ Research Associate Vacancy

Geoff Gurr's group, based on the Orange Campus of Charles Sturt University in New South Wales, Australia, has a vacancy for a Postdoctoral Research Fellow. (Strong candidates with a masters degree will also be considered for appointment as a Research Fellow). This person will work on a new, ACIAR-funded project in collaboration with the Papua New Guinea Oil Palm Research Association and NSW Department of Primary Industries. We aim to understand the role of a planthopper, *Zophiuma lobulata* in the oil palm disease Finschhafen disorder. The full-time position is available from mid-2007 for 2 years, 8 months, has a competitive salary and generous operating funds. Though based in Orange the Postdoc will travel extensively in PNG for periods of up to several months at a time.

For more information, please contact Prof Geoff Gurr on +61 2 6365 7551/ ggurr@csu.edu.au

MEMBERSHIP NOMINATION FORM

To obtain a nomination form, please download from http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/aesmemform.pdf.